

charging of particles in aerosol 28. The corona discharger produces high concentrations of ions which are transported through openings in permeable grid electrode 24 to interact with and electrically charge aerosol particles in aerosol charging zone 30.

A | [0031] A voltage U_1 is applied from a voltage supply to permeable grid electrode 24 to produce an electric field. Ions produced by the corona discharge from wire 32 are transported through openings in electrode 24 due to this electric field. The ion production is, preferably, monitored and can be controlled by measuring the ionic current with a measuring electrode 36 (e.g. of aluminum foil), a shielded connector 38 and a current meter 40. Computer or other control means, responsive the measurements of ionic current by meter 40, can be advantageously employed to control ion production by the corona discharger.

REMARKS

Entry of this amendment is respectfully requested. The amendment ensures consistent use of reference number 24 in the specification. A marked-up version of the substitute paragraphs showing the revisions is attached.

Respectfully submitted,


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VERSION WITH MARKINGS TO SHOW CHANGES MADE

[0030] From inlet 12, aerosol 28 enters an aerosol charging zone 30 in the annular space between permeable grid electrode [14] 24 and outer wall 20. An axially extending corona wire 32 within cylindrically shaped permeable grid electrode 24 produces a corona discharge area 34 about wire 32, when a voltage U_{Cor} is applied to the wire. Corona wire 32, made of electrically conducting material, advantageously silver, serves as a controlled corona discharger for unipolar charging of particles in aerosol 28. The corona discharger produces high concentrations of ions which are transported through openings in permeable grid electrode [14] 24 to interact with and electrically charge aerosol particles in aerosol charging zone 30.

[0031] A voltage U_1 is applied from a voltage supply to permeable grid electrode [14] 24 to produce an electric field. Ions produced by the corona discharge from wire 32 are transported through openings in electrode 24 due to this electric field. The ion production is, preferably, monitored and can be controlled by measuring the ionic current with a measuring electrode 36 (e.g. of aluminum foil), a shielded connector 38 and a current meter 40. Computer or other control means, responsive the measurements of ionic current by meter 40, can be advantageously employed to control ion production by the corona discharger.